

Docket No.: 202182US3

COMMISSIONER FOR PATENTS  
ALEXANDRIA, VIRGINIA 22313

RE: Application Serial No.: 09/767,885  
Applicants: Kimio INOUE  
Filing Date: January 24, 2001  
For: SCREW SET FOR EXTRUDER  
Group Art Unit: 1723  
Examiner: SORKIN, D.

SIR:

Attached hereto for filing are the following papers:

**REQUEST FOR RECONSIDERATION**

Our check in the amount of \_\_\_\_\_ is attached covering any required fees. In the event any variance exists between the amount enclosed and the Patent Office charges for filing the above-noted documents, including any fees required under 37 C.F.R. 1.136 for any necessary Extension of Time to make the filing of the attached documents timely, please charge or credit the difference to our Deposit Account No. 15-0030. Further, if these papers are not considered timely filed, then a petition is hereby made under 37 C.F.R. 1.136 for the necessary extension of time. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

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IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF :  
KIMIO INOUE : EXAMINER: SORKIN, D.  
SERIAL NO: 09/767,885 :  
FILED: JANUARY 24, 2001 : GROUP ART UNIT: 1723  
FOR: SCREW SET FOR EXTRUDER :

REQUEST FOR RECONSIDERATION

COMMISSIONER FOR PATENTS  
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SIR:

In response to the Office Action dated December 2, 2003, Applicant requests the reconsideration of the rejection of Claims 1-3 and 5-11.

As has already been explained, according to a feature of the invention each screw set in a twin screw extruder is formed from segments having the same sectional shape, except for the crest portions of the blades thereof, which are shaped depending upon the function of each segment. Since the various segments are formed with the same sectional shape, except for the crest portions of the blades thereof, axially misaligned screw sets will not interfere with each other even when all of the segments are directly interconnected without using any spacers (see page 11, lines 7-11). Claims 1 and 10 therefore recite that a screw segment which, except for the crest portions of the screw blades thereof, has the same sectional shape as a rotor segment comprising at least one kneading segment, except for the crest portions of the kneading blades.

The examiner has again rejected all of the claims as being anticipated or rendered obvious by U.S. patent 5,947,593 (Inoue et al). In doing so, the examiner has again failed to cite a reference which teaches a screw set wherein a screw segment which, except for the crest portions of the screw blades thereof, has the same sectional shape as a rotor segment comprising at least one kneading segment, except for the crest portions of the kneading blades. Instead the examiner has again simply pointed to the element 1b of this reference, identified therein only as a “rotor segment” 1b. The examiner has alleged that this element is both a rotor segment comprising at least one kneading segment and a screw segment, and has noted the unremarkable fact that this element has the same sectional shape as itself.

This rejection is again respectfully traversed for a number of reasons. Applicants had previously explained that the examiner cannot properly identify the rotor segment 1b as both a rotor segment comprising at least one kneading segment and a screw segment because those skilled in the art would not have considered it to be both. That is, even the broadest reasonable interpretation of these claim terms is limited by the plain meaning as understood by those skilled in the art, who maintain a distinction between a rotor segment a rotor segment comprising at least one kneading segment and a screw segment. In support thereof, Applicants have submitted the declaration (particularly the second declaration) of the inventor, Mr. Kimio Inoue, who has stated that “a kneading [rotor] ... has a structure to optimize kneading” (see paragraph 7 of the second Inoue Declaration), and that “while a rotor segment comprised of at least one kneading rotor may axially advance the plastic material during the kneading thereof, it has a special configuration which is distinguishable from a screw segment” (*Id*, paragraph 10). Applicant respectfully submits that the examiner’s continued insistence that an element identified in the prior art as a rotor segment can be relied upon as both a rotor segment comprising at least one kneading segment and a screw segment

represents a distortion of these terms, which is inconsistent with their ordinary meanings to those skilled in the art.

Applicant notes that the examiner's allegation in paragraph 2 of the Office Action that the Inoue Declarations contradict the disclosure of U.S. patent 5,947,593 and the disclosure of the present application. Applicant respectfully submits that this allegation is incorrect, if only because it is based upon the misunderstanding that the specific numerical ranges mentioned in paragraph 10 of the second Inoue declaration represent a hard and fast restriction on the meaning of a kneading rotor or screw segment. In fact, these numerical limitations are only exemplary in nature (“**for example**, a screw segment...” see *Id*, paragraph 10, line 3). What is not exemplary, on the other hand, is the *unrebutted* statements therein that a kneading rotor has a structure to optimize the kneading of the plastic material to be extruded (paragraph 7), a screw segment has a structure to optimize the axial advancement of the plastic material (paragraph 9), and that “those skilled in the art would not identify an element designed and used a rotor segment in an extruder as a ‘screw segment’.”

In any case, there is no disclosure in Inoue et al of different tip shapes for a rotor segment 1b and itself (a *non sequitur*) or for two of the rotor segments 1b. Applicant notes the examiner's comment that Inoue et al discloses “a plurality of tips (those of 7a, 7b, 7c) different from each other in the circumferential direction,” but this is not relevant to the claims, which do not mention the circumferential direction. The two rotor segments 1b of Inoue et al (Fig. 3) are in fact identical, **including the tips**.

In summary:

1. The burden is upon the examiner to show that at least one claim is anticipated by Inoue et al.

2. While the examiner is entitled to give the claim terms their broadest reasonable interpretation, this “broadest reasonable interpretation” is nonetheless limited to the “plain meaning” of the claim terms as understood by those skilled in the art.

3. The Inoue et al. reference refers to element 1b as a rotor segment. It does not additionally identify this element as a screw segment.

4. The examiner has not identified any other prior art reference which uses the terms “screw segment” and “rotor segment comprising at least one kneading rotor” interchangeably, or otherwise suggests that a single element may arbitrarily be relied upon as either a screw segment or a rotor segment comprising at least one kneading rotor.

5. The examiner’s objection to the second Inoue declaration is limited to a criticism of the **exemplary** angles identified in paragraph 10 of the declaration (except for the examiner’s correct identification of a numerical typographical error therein). The examiner, however, has not rebutted the fundamental conclusion of the second Inoue declaration -- that those skilled in the art would not consider a rotor segment comprising at least one kneading rotor to be interchangeable with a screw segment.

6. There is no disclosure in Inoue et al of different tip shapes for the two rotor segments 1b therein, which are identical, **including the tips**.

Applicant therefore respectfully submits that the examiner cannot properly rely upon element 1b of Inoue et al to be both a rotor segment comprising at least one kneading rotor and a screw segment, and so the rejection based thereupon is clearly improper. The outstanding prior art rejections are therefore traversed and their withdrawal is respectfully solicited.

As for the rejection under 35 U.S.C. § 112, Applicant again respectfully submits that the examiner has not provided a reason why:

the claim [does not apprise] one of ordinary skill in the art of its scope and, therefore, serves the notice function required by 35 U.S.C. 112, second

paragraph >by providing clear warning to others as to what constitutes infringement of the patent<. See, e.g., *Solomon v. Kimberly-Clark Corp.*, 216 F.3d 1372, 1379, 55 USPQ2d 1279, 1283 (Fed. Cir. 2000). (MPEP 2173.02).

Applicant's prior response to this rejection is not simply a repetition of the preamble. It instead points out the simple fact that the claim preamble recites exactly what it purports to recite: a screw set located in an extruder. Applicant respectfully submits that this raises no ambiguity in the claims; one skilled in the art would not be confused as to whether a claim clearly reciting a screw set located in an extruder includes the extruder itself.


Applicant therefore believes that the present application is in a condition for allowance and respectfully solicits an early Notice of Allowability.

Respectfully submitted,

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